

Notice of Allowability

Application No.

09/885,731

Applicant(s)

ERIKSON ET AL.

Examiner

Suryaprabha Chunduru

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/30/04.
2. ☒ The allowed claim(s) is/are 1-5, 7-27 and 29.
3. ☒ The drawings filed on 20 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JEFFREY FREDMAN
PRIMARY EXAMINER

DETAILED ACTION

1. Appeal Brief filed on August 30, 2004 under 37 CFR 1.192 is entered and considered.
2. Claims 1-5, and 7-55 pending, with claims 28 and 30-55 being withdrawn from consideration pursuant to a restriction requirement. Claims 1-5, 7-27, and 29 are the subject of the appeal brief.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David M. Tener on October 19, 2004.

Please amend the claims as follows:

Cancel claims 28 and 30-55.

4. The following is an examiner's statement of reasons for allowance:

Claims 1-5, 7-27 and 29 are allowed.

The present invention is drawn to a method of creating a nucleic acid multiplex comprising (1) creating a mixture comprising water, a Watson-Crick duplex, a sufficient number of single-stranded mixed base sequences to form the multiplex including the Watson-Crick duplex, and an accelerator agent that increases a rate or amount of multiplex formation, said multiplex being a triplex or quadruplex and (2) incubating said mixture to allow the multiplex form, each strand of said multiplex related to all other strands of the multiplex by adherence to Watson-Crick base pairing rules or homologous binding base-pairing rules, provided that, within the multiplex, the

Watson-Crick duplex added in step (1) is heteropolymeric with a G-C content between 10% and 90% and a combined frequency therein of purine-pyrimidine dimers and pyrimidine-purine dimers exceeds 25%.

Applicants' arguments on the closest prior art rejection under 35 USC 103(a) George Jr. (USPN. 5,451,502) in view of McGavin et al. (J. Mol. Graphics, Vol. 7, pages 218-232, 1989) are fully considered. Applicants argue that the rejection of the instant claims is based on an improper "obvious-to-try" standard of obviousness with no reasonable expectation of success and the theoretical teachings of McGavin reference is a non-enabling art according to In re Payne and argue that there is no motivation to modify the primary reference (George et al.) with the teachings of McGavin et al. to reach the claimed invention with a reasonable expectation of success. These arguments are fully considered and found persuasive upon the suggestions made by (in the appeal brief conference) Gary Benzion (Supervisor, AU 1637), Jeffrey Siew (Supervisor, AU 1642) and Jeffrey Fredman (Primary Examiner, AU 1634). The rejection is withdrawn herein and the claimed invention is found to be non-obvious and novel based on the persuasive arguments.


Thus the instant invention was not taught or obvious over the closest prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suryaprabha Chunduru whose telephone number is 571-272-0783. The examiner can normally be reached on 8.30A.M. - 4.30P.M, Mon - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and - for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Suryaprabha Chunduru.
October 20, 2004.


JEFFREY FREDMAN
PRIMARY EXAMINER
10/20/04